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### **AMENDMENTS TO DRAWINGS**

Please amend Fig. 4 to correct the spelling error and delete the question mark in the lowermost block of the flowchart, as indicated by the attached REPLACEMENT SHEET.

## REMARKS

Reconsideration of the application is respectfully requested for the following reasons:

1. Amendments to Specification, Title, and Drawings

The title has been amended to refer to the dual calculator/keypad function of the invention, as required in item 1 on page 2 of the Official Action.

The drawings have been amended to delete the question mark in the lowermost block of Fig. 4, and to change “form” to –from– in the same block.

Finally, the specification has been amended to correct various minor grammatical and idiomatic errors.

Because the changes are all formal in nature, it is respectfully submitted that the changes do not involve new matter.

2. Rejection of Claims 1-10 Under 35 USC §112, 2nd Paragraph

This rejection has been addressed by:

- a. amending claim 1 to clarify that the calculator device enables the keypad to perform a calculator function (and that the calculator device is included in the keypad);
- b. amending claim 1 to clarify that the detection device detects whether power is provided by a battery or the computer, as described on page 4, lines 7-9 of the original specification; and
- c. amending claim 1 to positively recite the numerical calculation function of the processing unit.

Having addressed each of the grounds for rejection specified in the Official Action, withdrawal of the rejection of claims 1-10 under 35 USC §112, 2<sup>nd</sup> Paragraph is respectfully requested.

3. Rejection of Claims 1, 2, 4-6, and 8-10 Under 35 USC §103(a) in view of U.S. Patent Nos. 5,119,078 (Grant '078) and 5,339,097 (Grant '097)

This rejection is respectfully traversed on the grounds that neither of the two Grant patents discloses or suggests, whether considered individually or in any reasonable combination,

- a keypad that includes a calculator device for detecting whether power is being supplied by a battery or computer, as recited in **claim 1**,
- the calculator device included in the keypad having a **processor** that performs **numeric calculations**, as also recited in **claim 1**, and
- the numeric calculations being displayed on a **first display unit** of the calculating device, as recited in **claim 7**, or sent to a computer if a **link to the computer** is detected, as recited in new **claim 11** (which is supported by page 5, lines 21-25 of the original specification), and
- a calculator device in a keypad that activates either a **keypad function** or a **calculator function** in response to either the power supply detection or depression of an input unit, as recited in new **claim 12** (which is supported by page 5, lines 14-16 and page 6, lines 2-4 of the original specification).

Instead of disclosing the claimed combination of a calculator and plug-in<sup>1</sup> keypad, the Grant '078 patent discloses an ergonomic keyboard with an ordinary keypad, a novel arrangement of function keys, and an integrated display. The keyboard of Grant '078 does not:

- perform a calculator function by actually performing numeric calculations (as opposed to providing a numeric input for a computer and performing the calculations “via” the computer),
- detect whether power is supplied by a local power supply (battery) or computer, much less activate calculator or keypad functions based on the determination,
- switch between keypad and calculator functions, or

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<sup>1</sup> Claim 1 specifically recites a USB link to the computer

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- include its own display(s) for displaying calculation results or indicating whether it is in keypad or calculator mode.

In fact, the keyboard of Grant '078 has **none** of the characterizing features of the claimed invention.

It is true, as noted by the Examiner, that the keypad of Grant '078 can perform calculations **via a computer**, which is the usual function of a keypad. The claimed invention, on the other hand, enables the keypad itself (or at least a calculating device in the keypad) to perform numerical calculations. *Causing a calculating device in the keypad to perform calculations and display or send the results to a computer, as claimed, is not the same as performing the calculations via the computer, as taught by Grant '078.* Element 112 disclosed in the Grant '078 patent is not a calculating device, but merely a “calculator **mnemonic**” or memory aid to enable “touch typing” on the keypad.

These deficiencies are not remedied by the Grant '097 patent, which discloses exactly the same keypad arrangement as the '078 patent and also does not perform calculations, detect power supply source, or carry out any of the other keypad/calculator switching functions positively recited in claims 1-9, 11, and 12.

Because the Grant '078 and Grant '097 patents fail to disclose or suggest, whether considered individually or in any reasonable combination, all elements recited in any of the currently pending claims, withdrawal of the rejection under 35 USC §103(a) in view of the Grant patents is respectfully requested.

4. Rejection of Claims 1-7 and 10 Under 35 USC §103(a) in view of U.S. Patent Publication No. 2002/0188437 (Chou)

This rejection is respectfully traversed on the grounds that the Chou publication, like the Grant patents discussed above, fails to disclose or suggest the claimed combination of a calculator and plug-in keypad. Instead, the Chou patent discloses a WAP (*i.e.*, wireless

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communications) handset that includes text processing capabilities so that the handset can handle different languages. This has nothing to do with the claimed invention, and does not even remotely suggest such features of the claimed invention as:

- a keypad function for supplying input numerical data and operation commands to the computer,
- an input device for switching between calculator and keypad functions,
- a USB link to a computer so that either input data or calculation results can be supplied to the computer, or
- a power source detection device for not only detecting whether a battery is supplying power, but also for detecting whether a computer is supplying power (the handset of Chou is not even arranged to receive any power from a computer).

While the handset of Chou might have a "calculator function," as briefly mentioned in paragraph [0005] on page 1 of the Chou publication, the calculator function is nothing more than the standard calculator function of a handset type computer. The calculator device is not included in a data and command input keypad, as claimed, and there is no suggestion of enabling such a keypad to selectively function as both a keypad and a calculator, much less one that activates keypad and calculator functions based on detection of the power source and/or according to whether an input device is depressed. Because the Chou patent does not suggest all of the features recited in claims 1-7 and 10, withdrawal of the rejection under 35 USC §103(a) based on the Chou patent is respectfully requested.

Having thus overcome each of the rejections made in the Official Action, withdrawal of the rejections and expedited passage of the application to issue is requested.

Respectfully submitted,  
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